

THE IDENTITY OF PENNANT'S "WAPACUTHU OWL" AND THE SUBSPECIFIC NAME OF THE POPULATION OF *Bubo virginianus* FROM WEST OF HUDSON BAY

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ABSTRACT.—The name *Strix wapacuthu* Gmelin, often used for the subspecies of *Bubo virginianus* west of Hudson Bay, cannot be associated with certainty with either *B. virginianus* or *Nyctea scandiaca*. The subspecific name for the population of *B. virginianus* from Mackenzie to central-eastern British Columbia and northern Ontario should be *B. v. subarcticus* Hoy.

Identidad del Buho Wapacuthu de Pennant, y el nombre dado a una población de *Bubo virginianus* del oeste de la Bahía de Hudson

EXTRACTO.—El nombre *Strix wapacuthu* Gmelin, usado frecuentemente para una subespecie de *Bubo virginianus* del oeste de la Bahía de Hudson, no puede ser asociado con certeza ni con el *Bubo virginianus* ni con el *Nyctea scandiaca*. El nombre para esa subespecie, desde Mackenzie hasta el oeste central de Colombia Británica, y el norte de Ontario debe de ser *Bubo virginianus subarcticus* Hoy.

[Traducción de Eudoxio Paredes-Ruiz]

Gmelin (1788:291) proposed the name *Strix wapacuthu* for a species separate from what are now *Nyctea scandiaca* (Snowy Owl) and *Bubo virginianus* (Great Horned Owl). Latham (1790) followed Gmelin (op. cit.). Swainson and Richardson (1832) likewise did not associate *Strix wapacuthu* with either *N. scandiaca* or *B. virginianus*. However, Swainson (in Swainson and Richardson 1832) described another taxon as *Strix (Bubo) arctica*, a name later used subspecifically for Great Horned Owls of much of western Canada (see Stone 1896). After Richmond (1902) showed that Swainson's name was preoccupied by *Bubo arcticus*, proposed by Forster (1817) for the Snowy Owl, and therefore unavailable for any Great Horned Owl, the name was replaced by *B. v. subarcticus* proposed by Hoy (1852).

The name *wapacuthu* was associated with *N. scandiaca* by Coues (1874), Brewster (1906), Oberholser (1908, 1917), Manning (1952), Snyder (1961), and Godfrey (1986). On the other hand, Sharpe (1875) synonymized *wapacuthu* with *B. virginianus*, and the name was subsequently used for the subspecies of *B. virginianus* west of Hudson Bay by others (Oberholser 1904, Ridgway 1914, Cory 1918, Peters 1940, American Ornithologists' Union [A.O.U.] 1944, 1957, Snyder 1957). Todd (1963:454) recommended that the name *wapacuthu* be discarded altogether

because it "cannot certainly be identified with any species." Authors (e.g., Manning 1952, Godfrey 1986) who reject *wapacuthu* as applicable to *B. virginianus* follow Richmond (1902), the A.O.U. (1910, 1931), and Taverner (1938) in their use of *B. virginianus subarcticus* as the name for the pale subspecies of the Great Horned Owl from west of the Hudson Bay region.

In recently published books on owls, Karalus and Eckert (1974) used *wapacuthu* as the name of a subspecies of *B. virginianus* distinct from *subarcticus*, whereas Johnsgard (1988) stated that it is "identical" to *subarcticus*, and Voous (1988) referred to the western Hudson Bay population as "(subarcticus or *wapacuthu*)." McGillivray (1989) also indicated uncertainty by using "*wapacuthu/subarcticus*." Karalus and Eckert's (1974) treatment is taxonomically unverified as well as conceptually faulty (the ranges of the two subspecies are shown to overlap). Johnsgard's synonymy is incorrect even if his concept is correct, because he did not use the earliest available name for the subspecies. Because of the continuing various applications of *wapacuthu* in spite of earlier brief discussions of its description, a review of its use and identification follows.

Gmelin (1788:291) cited the "Arctic Zoology" of Pennant (1785) as the basis for the description of

Strix wapacuthu. Pennant's (1785) description was based on manuscript notes supplied by Thomas Hutchins. Hutchins, employed at York Factory by the Hudson's Bay Company as surgeon and "Corresponding Secretary," copied a manuscript by (Williams 1969, 1978) or collaborated with (C.S. Houston, *in litt.*) Andrew Graham, an employee of the same company who worked mostly at Fort Severn. Hutchins (*in* Allen 1951:521) stated that "In persuance of Mr. Graham's advice, I have described the plumage of the Birds, but as my knowledge of the variety of colours is very small, consequently the description must be very imperfect." In 1784 Hutchins convinced Pennant that he was the author of Graham's observations (Williams 1978); both Pennant (1785), who knew of Graham's work, and Latham (1785:43) credited Hutchins for information on birds from what is now northwestern Ontario and northeastern Manitoba.

Hutchins and Graham sent birds to the Royal Society in England (Forster 1772, Williams 1969) and to Latham (1821:xii), but those specimens are no longer extant (Williams 1978). The fate of the name *wapacuthu* must rest on its written description.

Pennant's (1785:231-232) description is under the section heading "without ears" in a review of Arctic owls and is "no. 119. Wapacuthu [owl]." The description is as follows: "With glossy black bill, and claws much incurvated: base of the bill beset with strong bristles: irides bright yellow: space between the eyes, cheeks, and throat, white: the ends of the feathers on the head black: scapulars, and all the coverts of the wings, white, elegantly barred with dusky reddish marks, pointing downwards: primaries, secondaries, and tail feathers, irregularly spotted and barred with pale red and black: back and coverts of the tail white, mixed with a few dusky spots: breast and belly dirty white, crossed with innumerable reddish lines: vent white: legs feathered to the toes which are covered with hairs. Weight five pounds: length two feet: extent four." Pennant (*op. cit.*) also gave descriptions of several other species of owls. Among these he included detailed descriptions of what are now *B. virginianus* (pp. 228-229) under the heading "with ears," and *N. scandiaca* (p. 233) under the heading "without ears."

Comments in the literature on Pennant's description of the Wapacuthu Owl are brief. Brewster (1906:205) stated that *wapacuthu* referred to *N. scandiaca* because it was described as "earless." Ridgway (1914) acknowledged that *N. scandiaca* has rudimentary ear

tufts but associated the name *wapacuthu* with the Great Horned Owl, commenting that molting *B. virginianus* "are often destitute of obvious ear-tufts . . . or the ear-tufts may have been plucked before the specimen came into his [Pennant's] possession." Peters (1940) used the name *B. virginianus wapacuthu*; he believed that Pennant's description was a composite that included characteristics of both *B. virginianus* and *N. scandiaca*. Manning (1952) stated that "there is nothing in this [Pennant's] description which is not reconcilable [sic] with a Snowy Owl; while apart from there being no mention of horns or the fine vermiculation of a Horned Owl (its most obvious characteristics), there are several points which definitely separate it from any Horned Owl . . ." but did not provide additional details. If the ear-tufts had been plucked or were absent through molting (Ridgway 1914) the combination of plumage characters could suggest *B. virginianus*; if the bird was normally "earless" the Wapacuthu Owl can easily be associated with *N. scandiaca*.

Pennant (1785) further stated that the Wapacuthu Owl "makes a nest on the moss on the ground. The young are hatched in May, and fly in June, and are white for a long time after." Nesting on the ground is consistent with *N. scandiaca*; *B. virginianus* usually nests in trees, and only rarely on the ground (Bent 1938), cliffs (Peck and James 1983) and rock outcrops (Johnsgard 1988). The description of the young as white is consistent with both *B. virginianus* and *N. scandiaca* for about the first 10 days of the natal plumage (Godfrey, pers. comm.; Johnsgard 1988). Older *B. virginianus* are buffy with the developing flight feathers similar to those of the adults (Johnsgard *op. cit.*). Older *N. scandiaca* are chocolate brown with white specks (N.K. Johnson, *in litt.*), the facial disc is white, and the flight feathers are white with brown crossbars "and brown vermiculations in the form of speck-like marbling" (Mikkola 1983). Hutchins (*in* Latham 1787:49) stated that the eggs of the Wapacuthu are "from five to ten in number." This exceeds the normal clutch size of *B. virginianus* (only one nest containing five eggs is cited in Bent [1938]) but is within the range of *N. scandiaca* clutches (Portenko 1972).

The name "Wapacuthu" of Pennant's (1785) owl was from the Cree language, in which "wap" refers to white (C.S. Houston, *in litt.*). Swainson and Richardson (1832) and Brewster (1906) commented that "wapacuthu" meant "White Owl." Graham (*in* Williams 1969:xxxv, 106, 107) used the names

"Wawpekatheu, the Spotted Owl" and "Wapacathew Omissew, The Snowy-Owl." We agree with Glover (*in* Williams 1969:106) that Graham's "Wawpekatheu" appears to be a heavily spotted example of *N. scandiaca*. Graham's "Wapacathew Omissew," merely described as smaller than the "Wawpekatheu," probably also refers to *N. scandiaca* and was so identified by Glover (*in* Williams 1969:107).

We conclude that the description of the Wapacuthu Owl as lacking ear-tufts, information on the nesting and clutch size, and the meaning of the Cree name indicate that Pennant's description was of *Nyctea scandiaca*. However, we agree with Todd (1963) that *wapacuthu* cannot be identified with certainty. The name *Strix wapacuthu* Gmelin, 1788 should be regarded as a *nomen dubium* (a name of doubtful application), and the subspecific name for the population of *Bubo virginianus* from Mackenzie to central-eastern British Columbia and northern Ontario (Godfrey 1986) should be *subarcticus* Hoy, 1852.

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LITERATURE CITED

- ALLEN, E.G. 1951. The history of American ornithology before Audubon. *Trans. American Philos. Soc.* (new ser.) 41:387-591.
- AMERICAN ORNITHOLOGISTS' UNION. 1910. Check-list of North American birds. Third edition. American Ornithol. Union, Lancaster, PA.
- . 1931. Check-list of North American birds. Fourth edition. American Ornithol. Union, Lancaster, PA.
- . 1944. Nineteenth supplement to the American Ornithologists' Union check-list of North American birds. *Auk* 61:441-464.
- . 1957. Check-list of North American birds. Fifth edition. American Ornithol. Union, Baltimore, MD.
- BENT, A. C. 1938. Life histories of North American birds of prey. Pt. 2. U.S. Natl. Mus. Bull. 170.
- BREWSTER, W. 1906. The birds of the Cambridge region of Massachusetts. *Mem. Nuttall Ornithol. Club* No. 4.
- CORY, C.B. 1918. Catalogue of birds of the Americas. Pt. 2, No. 1. Field Mus. Nat. Hist. Publ. 197, Zool. Ser. 13.
- COUES, E. 1874. Birds of the northwest. Dept. Interior, U.S. Geol. Surv. Terr. Misc. Publ. No. 3.
- FORSTER, J.R. 1772. An account of the birds from Hudson's Bay; with observations relative to their natural history; and Latin descriptions of some of the most uncommon. *Phil. Trans.* 62:382-433.
- . 1817. A synoptical catalogue of British birds. Nichols, Son, and Bentley, London, U.K.
- GODFREY, W.E. 1986. The birds of Canada. Rev. ed Natl. Mus. Nat. Sci., Ottawa, ON, Canada.
- GELIN, J.F. 1788. Caroli Linne . . . Systema naturae. . . Thirteenth edition. Vol. 1, Pt. 1.
- HOY, P.R. 1852. Description of two species of owls, presumed to be new, which inhabit the state of Wisconsin. *Proc. Acad. Nat. Sci. Philadelphia* 6:210-211.
- JOHNSGARD, P.A. 1988. North American owls: biology and natural history. Smithsonian Institution Press, Washington, DC.
- KARALUS, K.E. and A.W. ECKERT. 1974. The owls of North America (north of Mexico). Doubleday and Co., Inc., New York.
- LATHAM, J. 1785. A general synopsis of birds. Vol. 1, Pt. 3. Leigh, Sotheby and Sons, London, U.K.
- . 1787. Supplement to the general synopsis of birds. Vol. 1. Leigh, Sotheby and Sons, London, U.K.
- . 1790. Index ornithologicus. Vol. 1. Leigh and Sotheby, London, U.K.
- . 1821. General history of birds. Vol. 1. Jacob and Johnson, London, U.K.
- MANNING, T.H. 1952. Birds of the west James Bay and southern Hudson Bay coasts. Natl. Mus. Canada Bull. No. 125 (Biol. Ser. 43). 114 pp.
- MCGILLIVRAY, W.B. 1989. Geographic variation in size and reverse size dimorphism of the Great Horned Owl in North America. *Condor* 91:777-786.
- MIKKOLA, H. 1983. Owls of Europe. Buteo Books, Vermillion, SD.
- OBERHOLSER, H.C. 1904. A revision of the American Great Horned Owls. *Proc. U.S. Natl. Mus.* 27:177-192.
- . 1908. A new Great Horned Owl from Venezuela, with notes on the names of the American forms. *Mus. Brooklyn Inst. Arts and Sci.* 1:371-373.
- . 1917. Notes on North American birds. III. *Auk* 34:465-470.
- PECK, G.K. AND R.D. JAMES. 1983. Breeding birds of Ontario: nidiology and distribution. Vol. 1. Nonpasserines. Royal Ontario Museum, Toronto, ON, Canada.
- PENNANT, T. 1785. Arctic zoology. Vol. 2. Henry Hughes, London, U.K.
- PETERS, J.L. 1940. Check-list of birds of the world. Vol. 4. Harvard Univ. Press, Cambridge, MA.
- PORTENKO, L.A. 1972. Die Schnee-Eule, *Nyctea scandiaca*. Neue Brehm-Bücherei, A. Ziemsen Verlag, Wittenberg, Germany.

- RICHMOND, C.W. 1902. The proper name for the Arctic Horned Owl. *Proc. Biol. Soc. Washington* 15:86.
- RIDGWAY, R. 1914. The birds of North and Middle America. U.S. Natl. Mus. Bull. No. 50, Pt. 6.
- SHARPE, R.B. 1875. Catalogue of the birds in the British Museum. Vol. 2. British Mus. (Nat. Hist.). Printed by order of the Trustees, London, U.K.
- SNYDER, L.L. 1957. Arctic birds of Canada. University of Toronto Press, Toronto, ON, Canada.
- . 1961. On an unnamed population of the Great Horned Owl. Royal Ontario Mus. Life Sci. Div. Contr. 54.
- STONE, W. 1896. A revision of the North American horned owls with description of a new subspecies. *Auk* 13:153–156.
- SWAINSON, W. AND J. RICHARDSON. 1832. Fauna boreali-Americana. Pt. 2. The birds. John Murray, London, U.K.
- TAVERNER, P.A. 1938. Birds of Canada. The Musson Book Co. Ltd., Toronto, ON, Canada.
- TODD, W.E.C. 1963. Birds of the Labrador Peninsula and adjacent areas. University of Toronto Press, Toronto, ON, Canada.
- VOOUS, K.H. 1988. Owls of the northern hemisphere. William Collins Sons and Co., Ltd., London, U.K.
- WILLIAMS, G. [Ed.] 1969. Andrew Graham's observations on Hudson's Bay 1767–91. The Hudson's Bay Rec. Soc., London, U.K.
- . 1978. Andrew Graham and Thomas Hutchins: collaboration and plagiarism in 18th-century natural history. *Beaver* 308:4–14.

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